passed, and for two days, patient appeared convalescing, and quite conscious—suddenly coma supervened, with typhoidal symptoms, which soon terminated fatally. May not this be attributed to the uræmic poisoning on the brain, suspended by the labor, and afterwards by peritonitis, and then returning with renewed power? I regret that I had no opportunity to know the precise character of the kidney affection; the first specimen of urine drawn, and shown to the society, contained blood. If it was albuminous, the blood would conceal it; the second sample, several days after confinement, was not albuminous, and nearly normal. It is highly probable, yet not proven, that the urine during pregnancy was albuminous.

Looking up authorities, I find that Hippocrates states that convulsions arise from repletion or evacuation. Galen, admitting these causes, argued for a third, namely, irritation occasioned by a morbid humor. Aëtius adhered to a similar arrangement, but held that the third of these pathological conditions performed the principal part.

In nervous temperaments, local pain or irritation, or even exhaustion alone, may induce that state of cerebral affection upon which convulsions are consequent.

Eclampsia lacks some of the features of true epilepsy, e. g., the scream on the attack and foaming at the mouth, and rapidity of the sufferer's return to consciousness. Ramsbotham and other writers assert that puerperal convulsions were frequent during warm electrical states of the atmosphere. A large majority of cases are first pregnancies.

Churchill's statistics give—

In 602 cases, 1 case of convulsions.

In 165 cases of convulsions, 45 mothers lost, or more than one-fourth.

Dr. Lever, of London, pointed out the fact that there was albumen in the urine of women attacked by convulsions, and, in his experience, almost universally so.

The fact is of the first importance, and gives a key to preventive treatment.

Dr. Tyler Smith has thrown light on the pathology of this disease. The causes he considers: 1st, centric, e. g., pressure on the medulla oblongata from congestion, coagula, serous effusion within the cranium, loss of blood, morbid elements in the blood, or even emotion; or, 2d, excentric—acting on extremities of excitor nerves, e. g., irritation of spinal nerves of uterus, bladder, &c.

Cazeaux has entered more freely into the subject, and more satisfactorily, than any modern author on midwifery. His views coincide with those of Lever, just quoted. He says that eclamptic patients are almost always affected with albuminuria—yet pathological inquiry fails to establish a satisfactory connection, as cause and effect. "The presence of albumen in the urine," he observes, "does not constitute a disease; it is but the symptomatic expression of a local lesion, or of a general affection of the economy. The latter are doubtless capable of producing eclampsia, as they had already caused albuminuria. Though all eclamptic patients have albuminuria, it does not follow that albuminuria, however severe, necessarily gives rise to convulsions. Much progress, by recent inquirers, and by no one more so than Cazeaux, has been made in the study of this interesting and mysterious affection.

REPORT OF PASSAVANT'S OPERATION, WITH AND WITHOUT ETHER, AND ALSO UNDER NITROUS OXIDE.

Reported at the Suffolk District Medical Society, Nov. 26th, 1870, by B. Joy Jeffries, A.M., M.D.

Since my report to the Society and publication in this Journal of Sept. 15th, 1870, of the results of thirteen Passavant's operations for breaking up posterior synechiæ, or attachments of the iris to the capsule of the crystalline lens, I have employed it seven times, namely in the following two cases:

A woman has had chronic irido-choroiditis, and as sequelæ, some four or five attachments of the iris to the capsule. Around these the pupil dilates, showing the iris tissue to be still good. There is constant trouble from the eye, aggravated I judge by the dragging of these posterior synechiæ. Therefore, under ether, I broke away two that were close together at the upper side. After breaking one, and the aqueous had escaped, I found no great difficulty in pushing the point of my closed forceps between the iris and the cornea, against which it of course laid, to reach the next one close beside it. In a few days I broke another at the opposite side of the pupil, also under ether. The patient was rendered quite sick and uncomfortable by the ether, so much so that I proposed to her trying to break the next without anæsthetic. This she consented to, and I succeeded without difficulty. She did not complain of the pain as being very great, the dragging on the iris seeming to be the most painful part. That it was not severe was certainly proved by her preferring to have the fourth and last

operation also done without anæsthetic. With a little care and command over the patient, I had no difficulty in holding the eye sufficiently steady. A compressive bandage was each time left on over night. The aqueous humor is, however, much sooner resecreted and the corneal wound closed. The patient went back to her occupation in a store within 48 hours after the last operation, the eye now being hardly if any troublesome.

Another case was that of a man injured by the premature discharge of a blast. The face and eyes were full of powder. He has had traumatic iritis in the left eye, and atropine showed three broad posterior synechiæ. Both corneæ were so filled with powder, and the eyes in such a bad condition, that I judged it best to remove as many of the grains of powder as possible, and for that purpose kept him under ether some time, since he could not have held the globe still enough to work without. He was miserably sick from the ether, and dreaded taking it again. I therefore very gladly availed myself of the kindness of Dr. Robert Amory in offering to give the patient nitrous oxide gas. As he has reported on the special method of administering this anæsthetic, I omit speaking of it here, except to say that after the mouthpiece was removed, I had more than ample time to carry out my operation, time enough to have performed an *iridectomy*, or even a longer operation. For such short operations not followed by pain, I regard the nitrous oxide as invaluable. Passavant's operation has to be repeated as many times as there are widely separated attachments, and although I persuaded one patient to submit to it seven times under ether, we shall not always be so fortunate. The posterior synechiæ were so broad in this case, and the iris possibly friable, that I did not like to attempt to break them away without an anæsthetic for fear of the pain. The patient was perfectly satisfied with the gas, experiencing no pain whatever. A compressive bandage was kept on a few hours after each operation. The three operations have resulted in leaving a *free movable iris*. Spots of pigment where the attachments were, are seen on the capsule. To what extent they will disappear I cannot attempt to say. Judging from previous cases, I think all lymph will be gradually absorbed.

In these seven, and the thirteen operations previously reported, I did no harm to the capsule, and certainly improved the condition of the eye. In the second operation in the last case, owing either to the close and broad attachment, or my not grasping the iris deeply and firmly enough, it was a little torn and a filament dragged into the wound. It however entirely replaced itself before the eye was bandaged, and no traces of it are now seen.

With Dr. Passavant as with me this operation has always been successful. I therefore think it proper to quote the following from the *Med. Times and Gazette* of May 22, 1870, by Dr. Alex. Ogston, of Aberdeen, who, in referring to Dr. Passavant's article, says, "This paper of Dr. Passavant appeared so honestly written that a trial of his method was instituted in the next case that presented itself in the Aberdeen Hospital. In this case, as in all the cases where I have tried it, the operation was followed by no bad results as regards the iris; but though the adhesion was seen to tear, the contraction of the pupil, which invariably followed on the escape of the aqueous humor, allowed the two ends of the adhesion to lie so close to each other that they united again in spite of the free use of atropine, and by the time the corneal wound was healed the same state of matters existed as before the operation, only the adhesion was not so broad as before."

As Dr. Ogston does not minutely describe his method of operating, I can only imagine his results were due to having made a larger and more peripheric wound in the cornea than was necessary, whereby the aqueous chamber was not quickly enough reëstablished. I found no such trouble as he describes. He now operates in a different, and as I contend much more dangerous method, namely, he passes a not too sharp needle into the aqueous chamber opposite the point of iritic attachment, and engaging the point of the needle in the iris tissue, forces it away to break the synechia, using the hole in the cornea as a fulcrum. The unnecessary danger of wounding the lens and thereby producing cataract, which we must run in such a procedure, would be sufficient to induce me to hold to Dr. Passavant's method, which I have so far always found successful, and not so very difficult for those accustomed to ophthalmic operations, especially as I am now convinced it can be readily performed under nitrous oxide, a hundred gallons of which anæsthetic may be carried about with perfect safety in a case twenty inches long and eight square, as Dr. Amory has practically demonstrated.